GIS
Budget Request
2011 / 2012

GIS & Public Safety 2010 Annual Report

Davie County is fortunate to have a sophisticated enterprise Geographic Information System for a county of it's size. The Board of Commissioners and County Management have seen the benefit of a strong investment in GIS and, over the years, have well-funded the technology and infrastructure necessary to provide services and information to the public as well as County departments.

GIS Staff are committed to:
• providing high quality data, software and end-user support in a timely and cost-effective manner to meet the needs of our customers.
• providing the most efficient and effective public safety applications support for Davie County 911 Communications, Sheriff's Office, EMS, and Fire Departments.

GIS Staff:

> GIS and Public Safety Administrator, John Gallimore
> GIS Technician / Land Records Specialist, Todd Bennett

Davie County GIS – a snapshot

Over 15 years ago, Davie County chose to base it's GIS system on a software developed by ESRI, a private company located in Redlands, California. ESRI is now the world-leader in GIS software and technology. Taking full advantage of the tools available, Davie County now has an advanced GIS consisting of the following hardware and software:
- Small-government Enterprise Licensing
- ArcGIS Server running multiple web services
- ArcSDE enterprise database management
- ArcIMS Internet-accessible public access map website
- ArcMap desktop GIS for data editing, mapping and analysis
- ArcPad GPS data collection and mapping
- (2) primary database and map service servers
- (20) desktop GIS computers
- (5) CAD Dispatch positions w/ advance mapping
- (60) mobile data terminals w/ mapping for Law, Fire and EMS
- (3) Trimble GeoXT handheld GPS units
- (3) wide format GIS high-quality plotters
- (1) wide format full color scanner

GIS & Public Safety Administrator 2010 Activities

GIS Maintenance
ArcSDE database management configuration;
ArcSDE geodatabase replication planning/implementation for GoMaps GIS website;
ArcSDE GIS database SQLServer upgrades
ArcMap client upgrades – Development Services and Tax Department;

Public Safety:
GeoLynx 911 Mapping upgrade;
GeoLynx 911 map updates;
ContactOne MapSAG GIS data audit, installation/training;
Volunteer Fire Department ISO inspection mapping and analysis;
Davie County Sheriff's Office – implemented Sheriff Zone layer for use with Mobile mapping

Utilities:
Waterline map for Town of Mocksville;
Mocksville Water System Bacterial Sampling Sites map;
Completed updating hydrant data collected by GPS;
Hydrant zone maps for Mocksville Fire Department;
Community notification system study for utility public service communications

GIS development:
Public Utilities – planning for document georeferencing
County boundary remapping

Land Records:
Supervising parcel mapping process;
Deployed new property tax search web application and integrated with GoMaps website;
Tax mapping editing support;
MobileOffice updates for Tax Reval office (involved updating property record cards and GIS data for map)

Education:
NCGIS conference – member of conference committee for 2011 conference;
4H GIS/GPS Technology Today class – taught 10 students through interactive classroom and hands-on field use of technology.
GIS Day presentation in Davie County
4H SciTech Club class taught at Davie Center of Davidson County Comm. College

Planning and Development:
EnergovGIS training;
EnergovGIS system administration;
Planning/information gathering for Voluntary Agricultural Districts data layer in GIS;
U.S. Census Bureau – New Construction Program; Local Update of Census Addresses; Boundary and Annexation Survey for Davie County; Boundary and Annexation Survey for the Town of Mocksville;
State Board of Elections GIS data for precinct validation with U.S. Census Bureau

Municipal: Town of Bermuda Run: address and street atlas; property report for Town gate fee study; street light mapping using Duke Energy GPS data
Town of Mocksville- fire hydrant zone maps; water system TTHM map; street light mapping using Duke Energy GPS data

Davie County Schools – data updates for TIMS (Transportation Information Management System); temporary website on NC-STEM project (use of web server); New high school site map; map of geographic and population center of Davie County;

Economic Development Commission (site maps for marketing purposes)

GIS & Public Safety Administrator 2010 Activities

VisionFire: VisionFire 3.6 upgrades (server and 9 client PC's; visits to 7 fire departments and Rescue Squad); Technical support issues at Farmington, Rescue Squad, and Cornatzer-Dulin.

VisionMobile: upgrades and repairs at EMS, DCSO and Fire Departments; MobiLynx map upgrades and repairs at EMS, DCSO and Fire Departments; DCSO has 35 laptops running VisionMobile and MobiLynx mapping; EMS has 10 laptops running VisionMobile and MobiLynx mapping; and, the fire departments have 8 laptops running VisionMobile and MobiLynx mapping. Support includes program, database, and map information updates. Each laptop must be updated manually.

VisionInform: Web-based information access; installation, training, and user maintenance.

GeoLynx E911 Mapping:
GeoLynx map updates on a regular basis; user training and updates; map display enhancements.

MobiLynx Mapping:
Mobile mapping on laptops. Data updates and re-installs due to system updates;

FireHouse software for Smith Grove, County Line, Mocksville, and Advance fire departments; installed and configured transport of incident data from VisionCAD to local fire department for import into FireHouse database.
Firemen's Association Firehouse Working group to study conversion to FireHouse for other County fire departments.

VisionRMS: VisionRMS – version 4.3 upgrade (over 30 individual RMS PC's in use at DCSO – each PC had to be upgraded individually) – upgrade involved numerous hours of testing and working with the vendor; assistance with report writing and training.

VisionJail: Upgrades to version 4.3; user support requests including creating/running reports; training; program functionality; troubleshooting.

VisionFBR: FBR updates on 35 laptop computers for compatibility with VisionRMS 4.3 upgrade; FBR training; numerous VisionFBR issues at DCSO related to web services, user rights, login/password resets, upgrades, and laptop change outs.

VisionCAD: Planning for move to new E911 Center; VisionCAD upgrades; Reinstall VisionCAD Monitor at EMS; ProQA Emergency Medical Dispatch – installation; ProQA Emergency Medical Dispatch upgrades at 911 Communications.

CenturyLink Web Data Management System: End-user training; WebDMS will improve E911 maintenance, record updates, quality control, access to E911 database records.

ESP bank tracking installation: Allows telecommunicators to be notified of an activation when device is put into service; assists with location for law enforcement to apprehend bank robbery suspects.

GIS Technician / Land Records Specialist
2010 Activities

LAND RECORDS MAPPING
Accepted new responsibilities for parcel mapping and incorporated new duties into existing workload.
Learned parcel mapping process and successfully obtained Certified Mapper qualification; Mapped over 200 parcel divisions and subdivision plats.
Completed in-house mapper training on proper techniques of title research and mapping
Worked closely with Revaluation Department to resolve prior mapping errors

ADDRESS EDITING & CORRECTION
Continued address validation and maintenance process using new MapSAG addressing system.
Edited points, lines, & annotation of streets and addresses to match aerial photography
Over 3,000 edits completed during 2010
Validated street and individual address data & attributes during process (manually compared GIS data with Embarq and Yadkin Valley Telephone subscriber data and found and corrected discrepancies)

IMAGELYNX & MOBILYNX
Scanned & converted various building plans to digital format
Images linked to address to provide information on scene to emergency responders
Over 150 individual sites and over 500 individual documents were scanned and linked within the mapping system

2010 CENSUS REVIEW
Boundary and Annexation Survey (BAS) U.S. Census review for 2010. This project involved reviewing each new street and address added during 2009 and insuring those features were included in the U.S. Census mapping database.

FIRE HYDRANT & UTILITY MAPPING
Used GPS to locate existing & new fire hydrants, water valves, and waterlines on County water system
Generated map to reflect new hydrants and associated waterlines

E911 ADDRESSING EDITS
Reviewed all permits and plans in Energov for address validity.
Added numerous new streets and address points
Contact property owners and/or tenants when addresses corrections required

MAPS GENERATED FOR PUBLIC
Numerous individual map requests varying from property, contour, zoning, and aerial photography information

NEW SOFTWARE PROGRAMS
ArcPad and Trimble GPS software
Energov Land Management System
ContactOne MapSAG 911 Data Management System
CenturyLink Web-based Data Management System
U.S. Census Bureau MAF-TIGER Partnership Software

TOWN OF COOLEEMEE PROPERTY OWNER LIST
Provided Town of Cooleemee with quarterly property owner list documenting individual addresses with tax parcel ownership

COUNTY OF DAVIE
BUDGET 2011-2012 FISCAL YEAR

	PRIOR YR ACT Jun-10	CURR ACTUAL 2010-2011	CURR BUDGET 2010-2011	REQUESTED 2011-2012	MANAGER 2011-2012	BOARD 2011-2012
GIS						

52320 510010 SALARIES AND WAGES	98,750.08	41,115.03	99,980.00	99,980.00	_____	_____
52320 510020 PART-TIME SALARIES	0	0	0	0	_____	_____
52320 510040 LONGEVITY	550	610	610	670	_____	_____
52320 520050 FICA	7,160.71	3,002.67	7,695.00	7,695.00	_____	_____
52320 520060 GROUP HOSPITAL INSURANCE	15,324.12	6,077.32	14,482.00	16,350.00	_____	_____
52320 520070 RETIREMENT	4,855.82	2,682.90	6,468.00	6,468.00	_____	_____
52320 520080 WORKMENS COMPENSATION	1,473.91	1,783.90	1,784.00	1,784.00	_____	_____
52320 520100 ECS UNEMPLOYMENT INSURANCE	0	0	0	0	_____	_____
52320 520110 GROUP LIFE INSURANCE	86.4	34	0	0	_____	_____
52320 520120 401K-EMPLOYER SUPPLEMENT	2,216.97	1,233.47	2,999.00	3,000.00	_____	_____
52320 520130 YMCA MEMBERSHIP	220	100	600	600	_____	_____
52320 520250 EMPLOYEE MEDICAL EXPENSE	0	0	0	0	_____	_____
52320 520260 EMPLOYEE EDUCATION REIMBURSEM	0	0	0	0	_____	_____
52320 530120 POSTAGE	0	0	100	100	_____	_____
52320 530250 PRINTING & BINDING	252	0	1,000.00	500.00	_____	_____
52320 530300 VEHICLE TIRES	0	0	300	300	_____	_____
52320 530310 VEHICLE GAS & OIL	46.72	135.56	500	500	_____	_____
52320 530320 OFFICE SUPPLIES	1,616.99	24.49	2,000.00	2,500.00	_____	_____
52320 530330 DEPARTMENT SUPPLIES	14.08	50	500	500	_____	_____

52320 540100 EDUCATION & TRAINING	308.56	340	500	1,000.00	_____ _____
52320 540110 TELEPHONE	1,225.53	490.98	1,000.00	1,000.00	_____ _____
52320 540130 UTILITIES	0	0	0	0	_____ _____
52320 540140 TRAVEL	10	566.94	1,000.00	1,800.00	_____ _____
52320 540210 BUILDING & EQUIPMENT RENTAL	0	0	0	0	_____ _____
52320 540450 PURCHASED SERVICES	15,431.15	6,433.00	20,445.00	23,000.00	_____ _____
52320 541540 COMPUTER SERVICES	36,000.00	36,432.50	42,000.00	42,000.00	_____ _____
52320 541550 CONSULTANTS	0	0	0	0	_____ _____
52320 550160 EQUIPMENT MAINTENANCE	1,060.00	0	6,000.00	5,500.00	_____ _____
52320 550170 VEHICLE MAINTENANCE	0	0	500	500	_____ _____
52320 550200 MAINTENANCE - ROAD SIGNS	0	1,473.73	20,000.00	15,000.00	_____ _____
52320 560120 SPECIAL EVENTS	0	0	0	0	_____ _____
52320 560260 ADVERTISING	0	0	0	0	_____ _____
52320 560530 DUES & SUBSCRIPTIONS	25	0	0	0	_____ _____
52320 560540 INSURANCE & BONDS	0	0	0	0	_____ _____
52320 560570 MISCELLANEOUS	0	0	0	0	_____ _____
52320 580600 EQUIPMENT & FURNITURE	0	0	0	0	_____ _____
52320 580610 COMPUTER SOFTWARE	63,492.86	0	0	34,700.00	_____ _____
52320 580620 COMPUTER HARDWARE	0	0	0	0	_____ _____
Total GIS	250,120.90	102,586.49	230,463.00	265,447.00	_____ _____

DEPARTMENTAL ACTIVITIES & GOALS

E911 Addressing / Data management

Assign all new addresses County-wide and administer the terms of the County's Addressing ordinance.

Review all zoning and building permits for accurate property information and street addresses within the County's Land Management System (Energov). Update permits and plans as needed to reflect address changes or new road names.

Update and maintain the mapping database in use by the Communications Department, including mapping enhancements(mapping software upgrades, maintaining existing layers/adding new layers)

Process road naming requests to the Planning Board and to Public Hearing before the County Commissioners.

Notify the Communications Department and local telephone service providers when changes are made to E911 information.

Enforcing the posting of structure numbers in accordance with the Davie County Addressing Ordinance.

Maintain the E911 address database and provide address information to County agencies as needed.

Print updates to the Addressing Map Book and distribute to County and other agencies as needed.

Road Sign Maintenance

Order and schedule repair and replacement of damaged or missing street name signs for E911 addressing.

Land Records Mapping

Convert deeds, plats and other public land records into digital mapping within the County's GIS.

Review land records mapping for errors, correct errors as necessary, and coordinate land records mapping with Tax Administration

or Real Property Appraisers as needed to insure accurate mapping of real property.

Provide property maps to the public or County departments as needed.

Work with the public to provide mapping and interpret and resolve mapping discrepancies.

GIS database development

    Develop additional GIS data such as zoning, watershed, flood zone, land topography, water and sewer systems, etc.

    Maintain and update the Official Davie County Addressing Map to include any modifications to streets, driveways, structure locations, fire districts, town boundaries, city limits, hydrology and other mapped features.

    Address atlas / specialized map books (utilities, fire districts, etc…)

    Scanning/georeferencing site plans, building plans, utility drawings

    Impervious surface data maintenance(updating building locations from aerial photography)

    Data archiving(long term archiving and data retrieval)

    Disaster planning/business continuity/emergency management

GIS Desktop Applications

    Provide specialized desktop mapping applications for use in Planning, Inspections, Tax Administration, Tax Reval, Emergency Management, and Public Utilities.

    Assist GIS users in accessing data for business needs; provide training and support to desktop GIS users for their department functions; develop custom maps and analyses for various departments using the County's GIS.

GIS Server access, maintenance, and map services

    Maintain GIS server applications, databases, and software to store and serve GIS data for County business needs

    Develop map services to support the County's Tax system (PASCO) and Land Management system (EnerGov)

<u>GIS website and public access</u>

     Provide Davie County GIS information to the public and other State and local agencies.

     Direct the development, design, and coordinate maintenance of the GIS Internet Public Access System(GoMaps)

     Development Services website – data maintenance – building/maintaining department pages

     Scanning/georeferencing planning/zoning documents – linking for internet/intranet access

     Specialized web applications for individual departments(Sheriff, Water, Economic Development, Emergency Management, etc…)

     Maintain the County's Public Property Tax application (PASCO) for property search, tax records, and property cards. Update and maintain the database serving the web-based PASCO system.

<u>Public Safety applications support</u>

     VisionAir public safety products

         VisionCAD 911 Dispatch(including 5 primary dispatch consoles and 3 backup dispatch consoles)

         VisionRMS law enforcement records management system(over 30 desktop clients located in the Davie County Sheriff's Office)

         VisionFBR law enforcement field based reporting(over 30 mobile laptop clients)

         VisionFire fire department incident reporting and records management system(13 volunteer fire and rescue departments)

         VisionJail detention center records management system(3 client workstations)

         VisionMobile mobile dispatch and communications software(over 50 client computers)

         MobiLynx mobile mapping application(over 50 client computers requiring regular software and map data updates)

     State Fire Reports (collecting from each department, compiling and forwarding to Office of State Fire Marshal; resolving errors)

     911 paging system (maintaining system including paging recipient management and troubleshooting paging problems)

     Reverse911 applications support(map data updates, geocoding customer records, managing users and application enhancements)

     Creating/updating fire plan documents for use with 911 dispatch and mobile data terminals

Other Projects and Applications

    EnerGov Land Management System – user support, training, system administration, reporting, and user management.

    Energov – reviewing addresses and parcels for plan cases

    Mobile Office tax revaluation data maintenance(Tax Reval)

    Tax Assessor – appraisal database conversion – integration with GIS(Tax Administration) – ongoing

    Building permit / construction and demographic analysis(Planning)

    Utility mapping(Public Utilities)

    GPS activities – fire hydrants, utility/infrastructure(Public Utilities)

    Subdivision information – linking/referencing with GIS data(Planning)

    Cemetery Mapping Project(County Administration) – required by General Statute

    Census Boundary and Annexation Survey (BAS); Local Update of Census Addresses (LUCA); New Construction Program (Planning)

    Elections boundaries and voting districts(Board of Elections)

    Municipal GIS requests by the Towns of Bermuda Run, Cooleemee and Mocksville including utility mapping, GIS map production(zoning and Municipal annexations, US Census Bureau map updates, streets addressing and road naming, and other special projects as needed.

    Development Services SharePoint (intranet) website – maintenance, training and management

Budget Sheet #2
F.Y. 2011 - 2012
Page 1 of 1

DAVIE COUNTY, NORTH CAROLINA
Department: GIS
Division:

ORGANIZATIONAL STRUCTURE

County
Manager

Development Services

Planning   GIS   Inspections

GIS & Public Safety
Administrator

GIS Support for:
County Departments
- Tax
- Utilities
- Elections
- Environmental Health
- Energov Land Management
- Planning and Zoning
Inspections

GIS & Public Safety applications support
for:
Public Safety Departments
- Communications
- Sheriff
- EMS
- Fire Departments

GIS Technician / Land
Records Mapper

DAVIE COUNTY, NORTH CAROLINA
Department: GIS
Division:

REQUEST FOR NEW POSITION

Title: Number:	Full-time	☐ Annual Salary:	
		Temporary ☐	
Hiring Date:	1st Year Cost:		2nd Year Cost:

Duties Responsibilities of Position:

Justify Need for Position in Detail:

Cost of New Equipment/Furniture for Position:

No New Position Request for 2011 / 2012

Budget Sheet #3A

DAVIE COUNTY, NORTH CAROLINA

F.Y. <u>2011 - 2012</u>
Page 1 of 9

Department: <u>GIS</u>
Division:

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 2	Annual Cost: $24,123
E911 Addressing	2	# of Part-time	
Mandated by: GS #153A	County Cost: $24,123		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	9.25%	
Todd Bennett	Land Records Specialist	34%	

Duties and Responsibilities of Positions

- Assign all new addresses County-wide and administer the terms of the County's Addressing ordinance
- Review all zoning and building permits for accurate property information and street addresses within the County's Land Management System (Energov). Update permits and plans as needed to reflect address changes or new road names
- Update and maintain the mapping database in use by the Communications Department, including mapping enhancements(mapping software upgrades, maintaining existing layers/adding new layers)
- Process road naming requests to the Planning Board and to Public Hearing before the County Commissioners
- Notify the Communications Department and local telephone service providers when changes are made to E911 information
- Enforcing the posting of structure numbers in accordance with the Davie County Addressing Ordinance
- Maintain the E911 address database and provide address information to County agencies as needed
- Print updates to the Addressing Map Book and distribute to County and other agencies as needed

Justify Need for Positions

3,388 addresses edited; 3,388 driveway segments edited; 3,400 street segments edited
117 ledger changes submitted to E-911 database provider – CenturyLink
33 address changes to correct customer addresses(letters, correspondence, customer service)
331 plan cases reviewed in Energov

This activity is required under General Statute and local ordinance. The County requires staff to maintain addressing information for the accurate locating of 911 addresses for Emergency Dispatch.

DAVIE COUNTY, NORTH CAROLINA

F.Y. <u>2011 - 2012</u>
Page 2 of 9

Department: <u>GIS</u>
Division: _____

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 2	Annual Cost: $3,123
Road Sign Maintenance	2	# of Part-time	
Mandated by: GS #153A	County Cost: $3,123		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	2%	
Todd Bennett	Land Records Specialist	3%	
Duties and Responsibilities of Positions			
• Order and schedule repair and replacement of damaged or missing street name signs for E911 addressing.			
Justify Need for Positions			
92 road sign plan cases entered into Energov (an average of 8 road signs per month needing repair and/or replacement or installation of new street name signs). This activity is required under General Statute and local ordinance. The County is required to install street names signs under the Addressing Ordinance to assist with emergency services and 91 Communications.			

DAVIE COUNTY, NORTH CAROLINA

Department: <u>GIS</u>
Division: <u>   </u>

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 2	Annual Cost: $12,498
Land Records Mapping	2	# of Part-time	
Mandated by: GS #147-54.3	County Cost: $12,498		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	4%	
Todd Bennett	Land Records Specialist	19%	
Duties and Responsibilities of Positions			

- Convert deeds, plats and other public land records into digital mapping within the County's GIS.
- Review land records mapping for errors, correct errors as necessary, and coordinate land records mapping with Tax Administration or Real Property Appraisers as needed to insure accurate mapping of real property.
- Provide property maps to the public or County departments as needed.
- Work with the public to provide mapping and interpret and resolve mapping discrepancies.

Justify Need for Positions

There were 461 parcel splits (land records requiring mapping) and 64 subdivision plats in 2010. Each deed or plat requires research and accurate mapping for the Tax Office to apply values to the property.

This activity is required under General Statute to accurately represent the real property tax base of the County for the purpose of placing the real property tax levy.

DAVIE COUNTY, NORTH CAROLINA

Department: <u>GIS</u>
Division: _____

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 2	Annual Cost: $17,302
GIS database development	2	# of Part-time	
Mandated by: GS #153A; GS#121	County Cost: $17,302		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	8%	
Todd Bennett	Land Records Specialist	22%	

Duties and Responsibilities of Positions

- Develop additional GIS data such as zoning, watershed, flood zone, land topography, water and sewer systems, etc.
- Maintain and update the Official Davie County Addressing Map to include any modifications to streets, driveways, structure locations, fire districts, town boundaries, city limits, hydrology and other mapped features.
- Address atlas / specialized map books (utilities, fire districts, etc…)
- Scanning/georeferencing site plans, building plans, utility drawings
- Impervious surface data maintenance(updating building locations from aerial photography)
- Data archiving(long term archiving and data retrieval)
- Disaster planning/business continuity/emergency management

Justify Need for Positions

3,388 addresses edited; 3,388 driveway segments edited; 3,400 street segments edited; for each feature edited, the 911 map has to be checked for accurate cartography and information;
4 custom map atlases were created for fire departments and public utilities
Hundreds of building plans, site plans, and utility documents were scanned for use with emergency services and GIS.
GIS Data is archived for future use, when needed, to preserve the public records as required by General Statute.
GIS staff have prepared disaster plans and made contingency arrangements in the event a disaster strikes the County's GIS infrastructure including alternative hardware, software licensing, and database access.

This activity is required under General Statute and local ordinance. The County requires staff to maintain addressing information for the accurate locating of 911 addresses for Emergency Dispatch.

Budget Sheet #3A
DAVIE COUNTY, NORTH CAROLINA

F.Y. 2011 - 2012
Department: GIS
Page 5 of 9
Division:

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 2	Annual Cost: $3,482
GIS Desktop Applications	2	# of Part-time	
Mandated by:	County Cost: $3,482		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	3%	
Todd Bennett	Land Records Specialist	2%	

Duties and Responsibilities of Positions

- Provide specialized desktop mapping applications for use in Planning, Inspections, Tax Administration, Tax Reval, Emergency Management, and Public Utilities.
- Assist GIS users in accessing data for business needs; provide training and support to desktop GIS users for their department functions; develop custom maps and analyses for various departments using the County's GIS.

Justify Need for Positions

This activity is necessitated by existing business practices undertaken by the County. Many County departments reply on accurate information and access to GIS information not publicly available on the County's GIS website. From permitting and planning to utilities, GIS information must be available on the user's desktop computer. To facilitate this, the County has invested in desktop GIS applications to access the information and give departments mapping and analysis tools for their business needs. GIS staff are required to deploy and support those applications and assist department users in accessing GIS information.

GIS staff assist in a variety of ways through telephone support, remote desktop support, or by personally visiting other county offices to help those departments access the information they need.

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 1	Annual Cost: $15,964
GIS server maintenance	1	# of Part-time	
Mandated by: GS #132-10 and 147-54.3	County Cost: $15,964		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	19%	

Duties and Responsibilities of Positions
- Maintain GIS server applications, databases, and software to store and serve GIS data for County business needs   - Develop map services to support the County's Tax system (PASCO) and Land Management system (EnerGov)

Justify Need for Positions
The County has invested in GIS server technology to allow greater access to the most timely and up to date GIS information for it's various business practices. Due to the complex nature and sophisticated GIS enterprise architecture, substantial time is spent developing and maintaining automated processes to insure that changes to GIS data are distributed and made accessible both to internal customers (County departments) and to external customers (the public) by way of the public GIS website GoMaps. Automated processes include reconciling databases, posting edits, linking GIS and tax information, exporting data for posting to the GIS data download webpage, and others. Creating and maintaining these automated processes allows the County to fully leverage the investment in technology and best use the resources for the greatest efficiency. This activity is required under General Statute to provide public access to GIS data. This is also required to maintain the County's tax mapping and GIS addressing.

Department: GIS

Division:

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 2	Annual Cost: $12,487
GIS website and public access	2	# of Part-time	
Mandated by: GS #132-10	County Cost: $12,487		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	12%	
Todd Bennett	Land Records Specialist	5%	
Duties and Responsibilities of Positions			

- Provide Davie County GIS information to the public and other State and local agencies.
- Direct the development, design, and coordinate maintenance of the GIS Internet Public Access System(GoMaps)
- Development Services website – data maintenance – building/maintaining department pages
- Scanning/georeferencing planning/zoning documents – linking for internet/intranet access
- Specialized web applications for individual departments(Sheriff, Water, Economic Development, Emergency Management, etc…)
- Maintain the County's Public Property Tax application (PASCO) for property search, tax records, and property cards. Update and maintain the database serving the web-based PASCO system.

Justify Need for Positions

Under General Statute, public agencies which create and maintain GIS data are required to make that information available to the public. Davie County provides that access in 2 primary ways: a public GIS mapping website – GoMaps; and, GIS data distribution through either data download through GoMaps, data download from the GIS data download webpage, or by distributing on request. In order to provide access to GIS data, the County must maintain server hardware, software, and database to support the public application; This requires various automated GIS jobs to insure timely data transfer and site modifications to incorporate new or modified data layers. Most recently, the County deployed a new property tax search application which is a vast improvement over just access to the GIS data. This new application is also located on the GIS website and provides the public greater access to searches and data than ever before.

This activity is required under General Statute to provide public access to GIS data.

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 2	Annual Cost: $22,116
Public Safety applications support	2	# of Part-time	
Mandated by: GS **58-79** (in part)	County Cost: $22,116		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	25.75%	
Todd Bennett	Land Records Specialist	1%	

Duties and Responsibilities of Positions

- VisionCAD 911 Dispatch(including 5 primary dispatch consoles and 3 backup dispatch consoles)
- VisionRMS law enforcement records management system(over 30 desktop clients located in the Davie County Sheriff's Office)
- VisionFBR law enforcement field based reporting(over 30 mobile laptop clients)
- VisionFire fire department incident reporting and records management system(13 volunteer fire and rescue departments)
- VisionJail detention center records management system(3 client workstations)
- VisionMobile mobile dispatch and communications software(over 50 client computers)
- MobiLynx mobile mapping application(over 50 client computers requiring regular software and map data updates)
- 911 paging system(maintaining system including paging recipient management and troubleshooting paging problems)
- Reverse911 applications support(map data updates, geocoding customer records, managing users and application enhancements)
- Fire Reports required by Office of State Fire Marshal
- Creating/updating fire plan documents for use with 911 dispatch and mobile data terminals

Justify Need for Positions

The County has fully invested in the VisionAir suite of public safety applications. These systems are fully integrated within the various public safety agencies including 911 Communications, Sheriff's Office, EMS, and Volunteer Fire Departments. In most cases, the operation of the public safety departments rely completely on the maintenance and accessibility to the public safety applications. GIS staff have been tasked with providing applications support for these public safety departments and the VisionAir products. While staff have been able to provide good support to date, there is a shortage of staff hours needed to improve and enhance the departments' use of the applications. Additional support is needed for ongoing training, data mining, analysis, and report writing. Departments are doing well entering data and meeting statutory requirements. However, additional analysis and reporting for operational improvements are needed to more fully utilize the County's investment.

DAVIE COUNTY, NORTH CAROLINA

Department: GIS
Division:

ACTIVITY JUSTIFICATION

Activity:	Number of Employees	# of Full-time: 2	Annual Cost: $21,016
Other Projects and Applications	2	# of Part-time	
Mandated by:	County Cost: $21,016		Federal / State Cost: $0
Employee	Job Title	Percentage of Total hours	
John Gallimore	GIS and Public Safety Administrator	17%	
Todd Bennett	Land Records Specialist	14%	
Duties and Responsibilities of Positions			

- EnerGov Land Management System – user support, training, system administration, reporting, and user management.
- EnerGov - reviewing addresses and parcels for plan cases
- Mobile Office tax revaluation data maintenance(Tax Reval)
- Tax Assessor – appraisal database conversion – integration with GIS(Tax Administration) – ongoing
- Building permit / construction and demographic analysis(Planning)
- Utility mapping(Public Utilities)
- GPS activities – fire hydrants, utility/infrastructure(Public Utilities)
- Subdivision information – linking/referencing with GIS data(Planning)
- Cemetery Mapping Project(County Administration) – required by General Statute
- Census Boundary and Annexation Survey (BAS); Local Update of Census Addresses (LUCA); New Construction Program (Planning)
- Elections boundaries and voting districts(Board of Elections)
- Municipal GIS requests by the Towns of Bermuda Run, Cooleemee and Mocksville including utility mapping, GIS map production(zoning and Municipal annexations, US Census Bureau map updates, streets addressing and road naming, and other special projects as needed.
- Development Services SharePoint site - maintenance, training, management

Justify Need for Positions

Energov – the County has invested in a Land Management System for permitting and planning; The County requires onsite support for staff training, system administration, and support. Energov also requires that addresses and parcels are reviewed for accuracy.

Tax Department programs – The new tax system PASCO uses a new database to maintain tax information which must be linked with GIS data; this requires ongoing maintenance and support on the GIS system to integrate GIS data with PASCO through map services. The Tax Office also uses a MobileOffiec program for field appraisers. GIS staff must support the MobileOffiec system with GIS data and support the MobileOffice program which maintains house photos and a tax card annotation system.

Numerous other agencies and departments rely on GIS staff to assist with projects and information related to GIS data. From Planning to utilities, to elections and the US Census, GIS staff provide data services, mapping, and various forms of support. In addition, the 3 municipalities are able to use County GIS services at no cost and receive assistance for various municipal business needs (e.g. mapping and utility GIS data maintenance).

Sharepoint – Development Services has implemented an internal website to share documents, manage a department calendar, and track service requests. The administration of this site is performed by GIS staff.

Budget Sheet #4   DAVIE COUNTY

F.Y. 2011 - 2012 _____   ANNUAL BUDGET ESTIMATE – SUMMARY CAPITAL OUTLAY REQUEST
Page 1 of 1 _____

Department: GIS

Item	Remarks	Account No.	Requested		Recommended	
			Quantity	**Cost**	**Quantity**	**Cost**
GeoComm MobiLynx	Upgrade to MobiLynx software	52320-580610	57	8,200.00		
VisionGIS Server	Implement VisionGIS server for CAD/RMS	52320-580610	1	23,000.00		
ArcPad/GPS Analyst	Upgrade existing GPS software	52320-580610	3	3,500.00		
Totals				34,700.00		

Department: GIS   E911 Addressing

Account No.		Item	Remarks	Requested		Recommended	
				Local Cost	Non-Local Cost	Local Cost	Non-Local Cost
52320	520130	YMCA MEMBERSHIP	22% of personnel costs	132.00			
52320	530250	PRINTING & BINDING	100%	500.00			
52320	530300	VEHICLE TIRES	47%	141.00			
52320	530310	VEHICLE GAS & OIL	47%	235.00			
52320	530320	OFFICE SUPPLIES	22% of personnel costs	330.00			
52320	530330	DEPARTMENT SUPPLIES	22% of personnel costs	110.00			
52320	540110	TELEPHONE	22% of personnel costs	220.00			
52320	540450	PURCHASED SERVICES	15% of maintenance agreements	2700.00			
52320	541540	COMPUTER SERVICES	19% of software maintenance	7980.00			
52320	550160	EQUIPMENT MAINTENANCE	11% of service contracts	330.00			
52320	550170	VEHICLE MAINTENANCE	40%	200.00			
52320	580610	COMPUTER SOFTWARE	10% of software upgrades	3470.00			
Totals				16348.00			

DAVIE COUNTY
ANNUAL BUDGET ESTIMATE - SUMMARY OPERATIONAL EXPENSE REQUEST

F.Y. 2011 - 2012
Page 2 of 9

Department: GIS   Road Sign Maintenance

Account No.		Item	Remarks	Requested Local Cost	Requested Non-Local Cost	Recommended Local Cost	Recommended Non-Local Cost
52320	520130	YMCA MEMBERSHIP	3% of personnel costs	15.00			
52320	530300	VEHICLE TIRES	33%	99.00			
52320	530310	VEHICLE GAS & OIL	33%	165.00			
52320	530320	OFFICE SUPPLIES	3% of personnel costs	37.50			
52320	530330	DEPARTMENT SUPPLIES	3% of personnel costs	12.50			
52320	540110	TELEPHONE	3% of personnel costs	25.00			
52320	541540	COMPUTER SERVICES	12% of software maintenance	5040.00			
52320	550160	EQUIPMENT MAINTENANCE	11% of service contracts	330.00			
52320	550170	VEHICLE MAINTENANCE	40%	200.00			
52320	550200	MAINTENANCE - ROAD SIGNS	100%	15000.00			
Totals				20924.00			

DAVIE COUNTY
ANNUAL BUDGET ESTIMATE - SUMMARY OPERATIONAL EXPENSE REQUEST

Department: GIS   Land Records Mapping

Account No.		Item	Remarks	Requested		Recommended	
				Local Cost	Non-Local Cost	Local Cost	Non-Local Cost
52320	520130	YMCA MEMBERSHIP	12% of personnel costs	72.00			
52320	530320	OFFICE SUPPLIES	12% of personnel costs	180.00			
52320	530330	DEPARTMENT SUPPLIES	12% of personnel costs	60.00			
52320	540100	EDUCATION & TRAINING	30%	300.00			
52320	540110	TELEPHONE	12% of personnel costs	120.00			
52320	540140	TRAVEL	44%	800.00			
52320	540450	PURCHASED SERVICES	15% of maintenance agreements	2700.00			
52320	541540	COMPUTER SERVICES	10% of software maintenance	4200.00			
52320	550160	EQUIPMENT MAINTENANCE	12% of service contracts	360.00			
Totals				8792.00			

Budget Sheet #4A

F.Y. 2011 - 2012
Page 4 of 9

Department: GIS   GIS database development

Account No.		Item	Remarks	Requested		Recommended	
				Local Cost	Non-Local Cost	Local Cost	Non-Local Cost
52320	520130	YMCA MEMBERSHIP	15% of personnel costs	90.00			
52320	530320	OFFICE SUPPLIES	15% of personnel costs	225.00			
52320	530330	DEPARTMENT SUPPLIES	15% of personnel costs	75.00			
52320	540110	TELEPHONE	15% of personnel costs	150.00			
52320	541540	COMPUTER SERVICES	19% of software maintenance	7980.00			
52320	550160	EQUIPMENT MAINTENANCE	11% of service contracts	330.00			
Totals				8850.00			

DAVIE COUNTY
ANNUAL BUDGET ESTIMATE - SUMMARY OPERATIONAL EXPENSE REQUEST

Department: GIS   GIS desktop applications

Account No.		Item	Remarks	Requested Local Cost	Requested Non-Local Cost	Recommended Local Cost	Recommended Non-Local Cost
52320	520130	YMCA MEMBERSHIP	3% of personnel costs	15.00			
52320	530320	OFFICE SUPPLIES	3% of personnel costs	37.50			
52320	530330	DEPARTMENT SUPPLIES	3% of personnel costs	12.50			
52320	540110	TELEPHONE	3% of personnel costs	25.00			
52320	541540	COMPUTER SERVICES	10% of software maintenance	4200.00			
52320	550160	EQUIPMENT MAINTENANCE	11% of service contracts	330.00			
Totals				4620.00			

DAVIE COUNTY
ANNUAL BUDGET ESTIMATE - SUMMARY OPERATIONAL EXPENSE REQUEST

Department: GIS   GIS server maintenance

Account No.		Item	Remarks	Requested		Recommended	
				Local Cost	Non-Local Cost	Local Cost	Non-Local Cost
52320	520130	YMCA MEMBERSHIP	10% of personnel costs	60.00			
52320	530320	OFFICE SUPPLIES	10% of personnel costs	150.00			
52320	530330	DEPARTMENT SUPPLIES	10% of personnel costs	50.00			
52320	540110	TELEPHONE	10% of personnel costs	100.00			
52320	540450	PURCHASED SERVICES	18% of maintenance agreements	3240.00			
52320	541540	COMPUTER SERVICES	10% of software maintenance	4200.00			
52320	550160	EQUIPMENT MAINTENANCE	11% of service contracts	330.00			
Totals				8130.00			

DAVIE COUNTY
ANNUAL BUDGET ESTIMATE - SUMMARY OPERATIONAL EXPENSE REQUEST

Department: GIS   GIS website and public access

Account No.		Item	Remarks	Requested Local Cost	Requested Non-Local Cost	Recommended Local Cost	Recommended Non-Local Cost
52320	520130	YMCA MEMBERSHIP	8% of personnel costs	48.00			
52320	530320	OFFICE SUPPLIES	8% of personnel costs	120.00			
52320	530330	DEPARTMENT SUPPLIES	8% of personnel costs	40.00			
52320	540110	TELEPHONE	8% of personnel costs	80.00			
52320	540450	PURCHASED SERVICES	50% of maintenance agreements	9000.00			
52320	541540	COMPUTER SERVICES	10% of software maintenance	4200.00			
52320	550160	EQUIPMENT MAINTENANCE	11% of service contracts	330.00			
Totals				13818.00			

Department: GIS   Public Safety Applications support

Account No.		Item	Remarks	Requested		Recommended	
				Local Cost	Non-Local Cost	Local Cost	Non-Local Cost
52320	520130	YMCA MEMBERSHIP	13% of personnel costs	78.00			
52320	530300	VEHICLE TIRES	20%	60.00			
52320	530310	VEHICLE GAS & OIL	20%	100.00			
52320	530320	OFFICE SUPPLIES	13% of personnel costs	195.00			
52320	530330	DEPARTMENT SUPPLIES	13% of personnel costs	65.00			
52320	540100	EDUCATION & TRAINING	70%	700.00			
52320	540110	TELEPHONE	13% of personnel costs	130.00			
52320	540140	TRAVEL	56%	1000.00			
52320	540450	PURCHASED SERVICES	2% of maintenance agreements	360.00			
52320	550160	EQUIPMENT MAINTENANCE	11% of service contracts	330.00			
52320	550170	VEHICLE MAINTENANCE	20%	100.00			
52320	580610	COMPUTER SOFTWARE	90% of software upgrades	31230.00			
Totals				34348.00			

DAVIE COUNTY
ANNUAL BUDGET ESTIMATE - SUMMARY OPERATIONAL EXPENSE REQUEST

Department: GIS   Other projects and applications

Account No.		Item	Remarks	Requested Local Cost	Requested Non-Local Cost	Recommended Local Cost	Recommended Non-Local Cost
52320	520130	YMCA MEMBERSHIP	15% of personnel costs	90.00			
52320	530320	OFFICE SUPPLIES	15% of personnel costs	225.00			
52320	530330	DEPARTMENT SUPPLIES	15% of personnel costs	75.00			
52320	540110	TELEPHONE	15% of personnel costs	150.00			
52320	541540	COMPUTER SERVICES	10% of software maintenance	4200.00			
52320	550160	EQUIPMENT MAINTENANCE	11% of service contracts	330.00			
Totals				5070.00			

CAPITAL OUTLAY DETAIL

Name of Project or Equipment:

> GeoComm MobiLynx version 7 upgrade

Description:

> Upgrade of existing MobiLynx mapping clients to the newest mapping engine to use dynamic routing and automatic vehicle locating (AVL) capabilities.

Justification:

The County's public safety departments (Sheriff, EMS and Fire) currently use an older version of the mobile mapping software, MobiLynx, which integrates with the VisionMobile mobile dispatch software. The software version that departments are using is several years older than the current technology which will allow dynamic routing of a unit to an incident using AVL. The new version of MobiLynx takes advantage of improvements in GIS mapping software to provide access to more and better information in the vehicle, and to provide better directions and routing in real-time. For the public safety departments which have seen more staff turnover, and more staff unfamiliar with Davie County roads and locations, having the best routing tools available will reduce response time and improve service during emergency incidents.

Estimated Cost:

> $8,200.00

Estimated Annual Operation / Maintenance Cost:

> $0.00

DAVIE COUNTY, NORTH CAROLINA

Department: GIS
Division:

CAPITAL OUTLAY DETAIL

Name of Project or Equipment:

   VisionGIS Server

Description:

   GIS server software to integrate the various VisionAir suite of applications with GIS data, provide data sharing, data validation, improved GIS integration with VisionCAD (Computer Aided Dispatch), and automated CAD geofile updates.

Justification:

   VisionGIS server is a product which will connect location and incident information together among the various database systems (CAD, RMS, Fire, mobile) and allow departments to improve the quality of the data they use when entering information as well as visually see locations of incidents and records. VisionGIS server is needed to improve the quality of data entry and to reuse data between CAD and RMS. VisionGIS server will also improve the overall data quality within the CAD system by more closely linking our existing GIS data to the CAD data instead of relying on manual data entry. By automating the geofile update process, changes to our core GIS data will be reflected in the CAD data. This insures more accurate call locating during an emergency, and also reporting and analysis after the incident.

Estimated Cost:

   $23,000.00

Estimated Annual Operation / Maintenance Cost:

   $2,500.00

CAPITAL OUTLAY DETAIL

Name of Project or Equipment:

ArcPad and GPS Analyst upgrades

Description:

Upgrade existing GPS software not covered under the County's existing GIS enterprise license agreement.

Justification:

The existing GPS software we currently use is not up to date with the changes in GPS technology and desktop GIS software. GPS software is not covered by our existing enterprise GIS licensing agreement and therefore is not included in regular software updates. As computer operating systems are updated, and GIS desktop software is upgraded, we will be forced to maintain an "old" computer with an "old" version of the desktop GIS software on it in order to successfully process GPS data collected in the field. This will impact the quality of the data and impair staff ability to maintain and update GIS data created through GPS data collection.

Estimated Cost:

$3,500.00

Estimated Annual Operation / Maintenance Cost:

$0.00

DAVIE COUNTY, NORTH CAROLINA

F.Y. 2011 - 2012
Page 1 of 1

Department: GIS
Division:

CONFERENCE & TRAINING DETAIL

No. Attending	Purpose, Estimated Date & Location	Mode of Travel	Estimated Cost			
			Travel	Fees	Lodging	Total
1	VisionAir Annual Users Conference; Wilmington, NC; October 2-6, 2011	Auto	300.00	700.00	750.00	1,750.00
1	North Carolina Property Mappers Conference Durham, NC; September 27-30, 2011 This conference required to maintain Certified Mapper designation.	Auto	200.00	250.00	400.00	850.00
	Totals		500.00	950.00	1150.00	2,600.00

Note: The VisionAir User's conference is critical to maintaining good training, knowledge of new software updates and upgrades, and staff development to take full advantage of the investment the County has made in the VisionAir suite of public safety applications. To date, Davie County has invested several hundreds of thousands of dollars in VisionAir and related products. Davie County public safety departments are fully invested in the use of VisionAir products and it is in the County's best interest to stay up to date on the latest software upgrades and releases, be trained on new features of existing software, and be knowledgeable of the integration available between the VisionAir products and between VisionAir products and other 3rd party software the County utilizes in conjunction with the VisionAir product suite. It is essential that Davie County staff attend the VisionAir Annual Users Conference to maintain the best possible working knowledge of the products and take advantage of training offered at the conference for no extra charge. In some cases, the training offered at the conference can cost substantially more if purchased separately. In the current budget year, by not attending the VisionAir conference, staff have been hampered in the planning of upgrade implementation and training on those upgrades.

DAVIE COUNTY, NORTH CAROLINA

F.Y. <u>2011 - 2012</u>   Department: <u>GIS   </u>
Page <u> 1 </u> of <u> 1   </u>   Division: <u>   </u>

SPECIAL WORK PROJECT

Location:

_____

Description:

No Special Work Projects for 2011 / 2012

_____

Justification:

_____

Estimated Cost:

ORG	EMPNO	LNAME	FNAME	JOB_DESC	SDATE	JUL 11-JUN 12	GRADE	HRATE	ASAL	REQUEST	GRD	MGR	GRD	BOARD	GRD
'52320__	854	BENNETT	CHRISTOPHER	'LAND RECORDS SPECIALIST__	11/03/2008	3	'63__		34,233	34,233	'63__				
'52320__	156	GALLIMORE	JOHN	'GIS ADMINISTRATOR__	06/01/1994	18	'72__		65,747	65,747	'72__				

TOTAL FULL TIME	99,980
TOTAL PART TIME	0
TOTAL	99,980
LONGEVITY	670
FICA	7,695
HOSPITAL	16,350
RETIREMENT	7,005
401K	3,000

TOTAL AUTHORIZED POSITIONS 2 FULL TIME